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10/519,945	12/29/2004	Steven J Harris	540-544	5065
23117 7590 02/25/2009 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER EMPIE, NATHAN H	
			ART UNIT 1792	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/519,945

Applicant(s)

HARRIS ET AL.

Examiner

NATHAN H. EMPIE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 14-22 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-22, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Examiner acknowledges receipt of 12/29/08 preliminary amendment to the claims which was entered into the file. Claims 1-10, 14-22, and 24-25 are currently pending examination, claim 26 has been withdrawn.

#### *Election/Restrictions*

This application contains claim 26 drawn to an invention nonelected without traverse in the reply filed on 7/10/08. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10, 14-22, and 24-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1 and 14 have been amended to recite the limitation of a % of hydrogen peroxide "by weight". Nowhere in applicant's originally filed disclosure is there support for the % in a "by weight" basis. The examiner asserts that the percent could be by any basis known in the art such as weight %, volume %, mole %, % of other compositional component, etc.

The examiner notes that applicant's representative (in remarks, 12/29/08, pg 6) has stated: "Applicants indicate that it is well known in the art, that in the field of surface preparation and coating, components are provided in weight percent amounts". The examiner asserts that this does not constitute a showing that one reading this specification would instantly understand the recited percentages as weight %, as other basis for the percent can be used. Additionally, "The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997) ('An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness.')" see MPEP 2145 (I.).

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10, 14-15, 20, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugio et al (US patent 4,086,128; hereafter Sugio).

Claims 1, 14 and 24: Sugio teaches a method of preparing the surface of coated structure (such as a resin coated glass fiber fabric, or a ply of resin / glass being coated

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with additional plies during lamination) for the application of an overcoat (see for example, abstract, col 5 lines 20 - 25), comprising;

Cleaning the surface of the coat with a cleaning solution (washed with a neutral detergent and water see, for example, col 5 lines 24 – 26), and

Applying an oxidizing agent ( $H_2O_2$ ) to the cleaned surface (see, for example, col 3 lines 45 - 55, col 5 lines 20 – 32, col 9 lines 15 - 25).

Sugio further teaches wherein the concentration of hydrogen peroxide is at least 1 w/v % (col 3 lines 45 - 55), but Sugio does not explicitly teach the hydrogen peroxide is about 1 to 10 wt% or 3 wt%. It would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated the hydrogen peroxide at such a claimed amount since in the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a *prima facie* case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

Claims 2 and 3: Sugio teaches wherein cleaning involves washing with a detergent and water (see, for example, col 5 lines 20 – 26). Sugio does not explicitly teach soaking the surface for 30 seconds to 5 minutes with the cleaning solution. The examiner takes official notice that it well known in the art to soak dirty surfaces with a cleaning solution, as the soaking action provides time for the cleaner to penetrate / permeate / react / etc. with the dirty surface influencing the solutions cleaning ability. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have allowed the coating solution to soak in the method of Sugio to enhance the cleaning ability of the cleaning solution. Although Sugio did not explicitly

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teach soaking for about 30 seconds to 5 minutes, it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated a soaking time within this claimed range since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Claims 4 – 7: Sugio teaches wherein cleaning involves washing with a detergent and water (see, for example, col 5 lines 20 – 26). But Sugio did not explicitly teach wherein the cleaning comprises agitating with a brush, or wherein agitating is for a time in the range from about 2 minutes to 10 minutes. The examiner takes official notice that it well known in the art to brush dirty surfaces, as the brushing action provides an added physical force to help remove debris from the surface augmenting the solutions cleaning ability. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated agitating by brushing into the method of Sugio to augment the cleaning ability of the cleaning solution. Although Sugio does not explicitly teach wherein agitating is for a time in the range from about 2 minutes to about 10 minutes, it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated agitating for time within the claimed range since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Claim 8: Sugio teaches the method of claims 1-7 wherein the method comprise soaking and agitating (as described above), but none explicitly teach wherein the cleaning comprises soaking before agitating. The examiner takes official notice that it well known in the art to soak dirty surfaces with a cleaning solution, as the soaking action provides time for the cleaner to penetrate / permeate / react / etc. with the dirty surface influencing the solutions cleaning ability by loosening debris. The examiner takes official notice that it well known in the art to brush dirty surfaces, as the brushing action provides an added physical force to help remove debris from the surface augmenting the solutions cleaning ability. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated a cleaning comprises soaking the surface of the coat before agitating into the method of Sugio since both processes aid in the cleaning action of cleaning solution, and as a soaking process would loosen bound debris and a brushing process would act to remove debris from the surface, one of ordinary skill in the art would appreciate that the force / time required during a brushing step could be reduced by first loosening the debris by soaking then brushing to more easily remove the loose debris.

Claim 10: Sugio further teaches a cleaning solution is water based (see, for example, col 4 lines 65 – 67, col 5 lines 20 - 25)

Claim 15: Sugio further teaches wherein the oxidizing agent is applied via spraying (see, for example, col 9 lines 20 – 22).

Claim 20: Sugio further teaches wherein the structure is a composite material (see, for example, glass – epoxy ply composite, col 5 lines 20 – 25).

Claim 22: Sugio teaches the method of claim 1 (described above), and further teaches applying the overcoat (metal film, see, for example, col 5 lines 41 - 45).

Claims 1 –10, 14- 22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the contents of internet website to Polyfiber aircraft coatings: <http://web.archive.org/web/19970402192545/http://www.polyfiber.com/step/> ; (hereafter Polyfiber, site confirmed to be publicly available on 4/2/1997 via the Internet Archive Wayback Machine) in view of the Chemetall product specification sheet of Ardrox 1900B (dated Feb 2001, procured from <http://www.aerospace.chemetall.com/pdf/TDS%Ardrox%201900B.pdf> ; hereafter Chemetall), Sugio, and Ball et al (US patent 6,559,242; hereafter Ball).

Claims 1 and 24: Polyfiber teaches a coated aircraft structure and the method of preparing the surface of a coated aircraft structure for the application of an overcoat (see, for example, “Step 2” through “Step 4”, figures, and pg 1-4) comprising,

cleaning the surface or the coat (thoroughly washing/ degreasing / cleaning the under coating prior to applying an overcoating; see for example pg 2 to 3, Steps 2 to 4).

Polyfiber broadly teaches the cleaning step, but is silent as to the specific chemicals that should be used for cleaning in preparing the surface for overcoating; So Polyfiber does not explicitly teach cleaning with a cleaning solution. When a primary reference is silent as to a certain detail, one of ordinary skill would be motivated to consult a secondary reference which satisfies the deficiencies of the primary reference. Chemetall teaches an alkaline cleaner specifically designed to predictably clean aircraft



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surfaces (see, for example, pg 1). As both Polyfiber and Chemetall have taught cleaning of aircraft surfaces, and as Polyfiber was silent as to a specific cleaner to use, it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated the cleaning solution taught by Chemetall into the method taught by Polyfiber as it is a predictable cleaning solution to clean aircraft surfaces.

Neither Polyfiber nor Chemetall explicitly teach that the method of preparing the surface for an overcoating further comprises applying an oxidizing agent to the surface. Polyfiber teaches that the surface to be overcoated can, for example, be epoxy (Superfil, pg 1 – 2). Sugio teaches a method of roughening a surface of a cleaned epoxy resin coating by treating the resinous surface by applying a solution with an oxidizing agent (hydrogen peroxide) (see, for example, abstract). Sugio further teaches that the step of roughening promotes adhesion for overcoating the roughened surface (see, for example, abstract). Ball also teaches a method of preparing a surface for overcoating (see, for example, abstract, col 3 lines 25 – 35). Ball further teaches applying hydrogen peroxide solutions to a variety of resinous and polymeric surfaces as a means to activate the surface to enhance the binding adhesion of an overcoating (see, for example, col 1 line 49 - col 2 line 26, col 2 lines 40 – 44, Table 3, col 5). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated a step of applying an oxidizing agent to the cleaned surface, as taught by Sugio and Ball, into the method of Polyfiber in view of Chemetall as such a step would improve the adhesion properties of the surface allowing it to be more susceptible to bonding a subsequent coating.

Claim 1 and 14: Ball further teaches wherein the concentration of hydrogen peroxide is 3 wt% (see, for example, Table 3, col 5).

Claims 2 and 3: Chemetall further teaches wherein cleaning comprises soaking (dwelling) the surface of the coat with the cleaning solution for about 5 to 10 minutes, and that the cleaning process can be altered based on the degree of cleaning required (see, for example, pg 1). Although Polyfiber in view of Chemetall, Sugio, and Ball do not explicitly teach soaking for about 30 seconds to 5 minutes, it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated a soaking time within this claimed range since in the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a *prima facie* case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

Claims 4 – 7: Chemetall further teaches wherein the cleaning comprises agitating (agitate as necessary) wherein agitating involves agitating the surface with a brush (agitate with brushes) (see, for example, pg 1). Although Polyfiber in view of Chemetall, Sugio, and Ball do not explicitly teach wherein agitating is for a time in the range from about 2 minutes to about 10 minutes, it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated agitating for time within the claimed range since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Claim 8: Chemetall further teaches wherein the cleaning comprises soaking the surface of the coat before agitating the surface with the cleaning solution (see, for

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example, "Spray on a heavy uniform film of ARDROX 1900B and allow 5 to 10 minutes of dwell time. Agitate with brushes if necessary then rinse", pg 1).

Claims 9 and 10: Chemetall teaches ARDROX 1900B as an alkaline cleaning solution which can be further be diluted in water depending on the substrate to be cleaned (see, for example, pg 1).

Claim 15: Sugio further teaches wherein the oxidizing agent is applied via spraying (see, for example, col 9 lines 20 – 22).

Claims 16 and 17: Polyfiber further teaches wherein the coat is a paint / primer (see, for example, "SuperFil", "Smooth Prime", or "Silver Shield", pg 1-3).

Claims 18: Polyfiber further teaches wherein the overcoat is paint (see, for example, "Silver Shield" or "Top coat paint", pg 1-3).

Claim 19: Polyfiber further teaches wherein the structure is metallic (Silver Shield has been taught to adhere equally well to metal or plastics (pg 1), and the examiner takes official notice that it is well known in the art to construct plane components, including exterior portions from metals).

Claim 20: Polyfiber further teaches wherein the structure is a composite material (Silver Shield is taught to be created to be applied onto composite structures (pg1), and the examiner takes official notice that it is well known in the art to construct plane components, including exterior portions from composite materials such as CMCs, MMCs, and polymeric impregnated composites).

Claim 21 and 25: Polyfiber further teaches wherein the structure is an aircraft (see, for example, pgs 1-4, including pictures).

Claims 22: Polyfiber further teaches applying the overcoat (see, for example, Step 4 pg 3, apply topcoat paint).

Claims 1 –10, 14- 22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polyfiber, in view of Van Eenam (US patent 5,516,459; hereafter Van Eenam), Sugio and Ball.

Claims 1 and 24: Polyfiber teaches a coated aircraft structure and the method of preparing the surface of a coated aircraft structure for the application of an overcoat (see, for example, “Step 2” through “Step 4”, figures, and pg 1-4) comprising,

cleaning the surface or the coat (thoroughly washing/ degreasing / cleaning the under coating prior to applying an overcoating; see for example pg 2 to 3, steps 2 to 4).

Polyfiber broadly teaches the cleaning step, but is silent as to the specific chemicals that should be used for cleaning in preparing the surface for overcoating; So Polyfiber does not explicitly teach cleaning with a cleaning solution. When a primary reference is silent as to a certain detail, one of ordinary skill would be motivated to consult a secondary reference which satisfies the deficiencies of the primary reference. Van Eenam teaches a method of using an alkaline cleaner specifically designed to predictably clean aircraft surfaces (see, for example, abstract, col1 line 25 - col 2 line 40). As both Polyfiber and Van Eenam have taught cleaning of aircraft surfaces, and as Polyfiber was silent as to a specific cleaner to use, it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated the cleaning solution

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taught by Van Eenam into the method taught by Polyfiber as it is a predictable cleaning solution to clean aircraft surfaces.

Neither Polyfiber nor Van Eenam explicitly teach that the method of preparing the surface for an overcoating further comprises applying an oxidizing agent to the surface. Polyfiber teaches that the surface to be overcoated can, for example, be epoxy (Superfil, pg 1 – 2). Sugio teaches a method of roughening a surface of a cleaned epoxy resin coating by treating the resinous surface by applying a solution with an oxidizing agent (hydrogen peroxide) (see, for example, abstract). Sugio further teaches that the step of roughening promotes adhesion for overcoating the roughened surface (see, for example, abstract). Ball also teaches a method of preparing a surface for overcoating (see, for example, abstract, col 3 lines 25 – 35). Ball further teaches applying hydrogen peroxide solutions to a variety of resinous and polymeric surfaces as a means to activate the surface to enhance the binding adhesion of an overcoating (see, for example, col 1 line 49 - col 2 line 26, col 2 lines 40 – 44, Table 3, col 5). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated a step of applying an oxidizing agent to the cleaned surface, as taught by Sugio and Ball, into the method of Polyfiber in view of Van Eenam as such a step would improve the adhesion properties of the surface allowing it to be more susceptible to bonding a subsequent coating.

Claims 1 and 14: Ball further teaches wherein the concentration of hydrogen peroxide is 3% (see, for example, col 5).

Claims 2 and 3: Van Eenam further teaches teach soaking (wetting hold period) the surface for 30 seconds with the cleaning solution (see, for example, col 7 lines 14 – 17).

Claim 4: Van Eenam further teaches wherein the cleaning comprises agitating (wiping) the surface of the coat with the cleaning solution (see, for example, col 7 lines 14 – 18).

Claims 5– 6: Van Eenam teaches wherein the cleaning comprises agitating (wiping) is for a time of about 10-15 seconds (see, for example, col 7 lines 14 – 18). But none of Polyfiber, Van Eenam, Sugio, nor Ball explicitly teach wherein the cleaning comprises wherein agitating is for a time in the range from about 30 seconds to 20 minutes, or 2 minutes to 10 minutes. The examiner take official notice that it is well known in the art that the duration of agitation will influence the degree of debris removal. Although Polyfiber in view of Van Eenam, Sugio and Ball do not explicitly teach wherein agitating is for a time in the range from about 30 seconds to 20 minutes, or 2 minutes to about 10 minutes, it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated agitating for time within the claimed range since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claim 7: Van Eenam teaches wherein the cleaning comprises agitating (wiping) is for a time of about 10-15 seconds (see, for example, col 7 lines 14 – 18). But none of Polyfiber , Van Eenam, Sugio, nor Ball explicitly teach wherein the cleaning comprises agitating with a brush. The examiner takes official notice that it well known in the art to

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brush dirty surfaces, as the brushing action provides an added physical force to help remove debris from the surface augmenting the solutions cleaning ability. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated agitating by brushing into the method of Polyfiber in view of Van Eenam, Sugio and Ball to augment the cleaning ability of the cleaning solution.

Claim 8: Van Eenam further teaches wherein the cleaning comprises soaking the surface of the coat before agitating the surface with the cleaning solution (see, for example, col 7 lines 14 – 18, where the surface is wetted for a hold period of ~30 seconds, followed by agitating (wiping)).

Claims 9 and 10: Van Eenam teaches a cleaning solution for airplane surfaces involves a mild alkaline detergent and water (see, for example, abstract, col 3 lines 25 – 35).

Claim 15: Sugio further teaches wherein the oxidizing agent is applied via spraying (see, for example, col 9 lines 20 – 22).

Claims 16 and 17: Polyfiber further teaches wherein the coat is a paint / primer (see, for example, "SuperFil", "Smooth Prime", or "Silver Shield", pg 1-3).

Claims 18: Polyfiber further teaches wherein the overcoat is paint (see, for example, "Silver Shield" or "Top coat paint", pg 1-3).

Claim 19: Polyfiber further teaches wherein the structure is metallic (Silver Shield has been taught to adhere equally well to metal or plastics (pg 1), and the examiner takes official notice that it is well known in the art to construct plane components, including exterior portions from metals).

Claim 20: Polyfiber further teaches wherein the structure is a composite material (Silver Shield is taught to be created to be applied onto composite structures (pg1), and the examiner takes official notice that it is well known in the art to construct plane components, including exterior portions from composite materials such as CMCs, MMCs, and polymeric impregnated composites).

Claim 21 and 25: Polyfiber further teaches wherein the structure is an aircraft (see, for example, pgs 1-4, including pictures).

Claims 22: Polyfiber further teaches applying the overcoat (see, for example, Step 4 pg 3, apply topcoat paint).

#### *Response to Arguments*

Applicant's arguments filed 12/29/08 have been fully considered but they are not persuasive.

In regards to applicant's arguments (running throughout the lion share of the rejections) that the prior art Sugio has failed to teach "the surface of a coated structure for the application of an overcoat", the examiner disagrees with applicants position. The examiner asserts that Sugio taught a coated structure, such a resin *coated* glass fiber fabric (wherein the resin is the coating on the previous glass fiber structure), or a ply or resin / glass being coated with additional plies during lamination, which are taught to further receive overcoating (see, for example, abstract, col 5 lines 20-25). As such the prior art does in fact teach the limitation to overcoating a coated structure.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections



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are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In regards to the rejection of claims 1-22, 24 and 25 over Polyfiber, Chemetall, Sugio and Ball, the applicant questions "how or where the examiner believes Chemetall teaches the step of applying 'an oxidising agent to the cleaned surface'; the examiner asserts that such a contention was never made, in fact the examiner had stated in the rejection that "Neither Polyfiber nor Chemetall explicitly teach that the method of preparing the surface for an overcoating further comprises applying an oxidizing agent to the surface" (top of pg 5, action dated 9/29/08). As the rejection was made over Polyfiber, Chemetall, Sugio and Ball the rejection had further laid out that this disputed feature was taught by Sugio and Ball not Chemetall. Further the applicant reverts to the arguments presented with regards to Sugio not being a coated substrate, the examiner directs the applicant's attention to the preceding paragraph, as well as asserting that the primary reference in this rejection, Polyfiber, additionally teaches treating a coated surface (as described in the rejection). The applicant further argues that the Ball reference "teaches the use of this 3% solution to roughen the surface of the structure to be coated and not a coating on the structure", in response the examiner asserts that the primary reference in this rejection, Polyfiber, teaches treating a coated surface to be overcoated (as described in the rejection), and the overall teaching of Ball is to a means to improve adhesion to epoxy surfaces, as the exposed coating on the Polyfiber structure is taught to be epoxy one of ordinary skill would appreciate that the adhesion

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properties of a coating of epoxy would be improved by such an peroxide solution treatment.

In response to applicant's arguments that the Sugio and Ball references "teach away from the claimed invention" and "there is no reason why one of ordinary skill in the art would pick and choose elements from the various references and then combine them in the manner suggested only in Applicant's independent claim 1" (pg 10 – 12); the examiner asserts that nowhere in the Sugio reference is it taught that the resin coating is completely etched through to the underlying glass fiber structure. The oxidizing agent treatment in both references is at the surface of the epoxy layer to improve the binding of the epoxy to an overcoating coating thus it would not teach away from the claimed invention, as it has never taught removing the entire epoxy coating, this is just a surface treatment, wherein the external surface is roughened to increase the surface area thus improving physical interlocking with an overcoating. The examiner asserts that such a teaching would transcend whether the epoxy is a singular solid mass, or whether this mass was a coating on some other mass; regardless the adhesion to the exposed *epoxy* surface would be improved. Again the overall teaching of Sugio and Ball is to a means to improve adhesion to epoxy surfaces, as the exposed coating on the Polyfiber structure (to be overcoated) is taught to be cleaned epoxy surface, one of ordinary skill would appreciate and be motivated to apply a peroxide solution treatment to the cleaned epoxy surface as it would improve the adhesion properties of the epoxy coating for overcoating.

The applicant has asserted similar arguments as those addressed in the two preceding paragraphs in the rejection of Polyfiber in view of Van Eenam, Sugio and Ball, and as such the examiner directs the applicant's attention to the preceding two paragraphs.

As to the dependent claims, they remain rejected as no separate arguments are provided.

As the applicant has not traversed the examiners previous assertion of official notice "that it well known in the art to soak dirty surfaces with a cleaning solution, as the soaking action provides time for the cleaner to penetrate / permeate / react / etc. with the dirty surface influencing the solutions cleaning ability", the well known in the art statement is taken to be admitted prior art.

As the applicant has not traversed the examiners previous assertion of official notice "that it well known in the art to brush dirty surfaces, as the brushing action provides an added physical force to help remove debris from the surface augmenting the solutions cleaning ability", the well known in the art statement is taken to be admitted prior art.

As the applicant has not traversed the examiners previous assertion of official notice "that it is well known in the art to construct plane components, including exterior portions from metals", the well known in the art statement is taken to be admitted prior art.

As the applicant has not traversed the examiners previous assertion of official notice "that it is well known in the art to construct plane components, including exterior

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portions from composite materials such as CMCs, MMCs, and polymeric impregnated composites”, the well known in the art statement is taken to be admitted prior art.

As the applicant has not traversed the examiners previous assertion of official notice “that it is well known in the art that the duration of agitation will influence the degree of debris removal”, the well known in the art statement is taken to be admitted prior art.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN H. EMPIE whose telephone number is (571)270-1886. The examiner can normally be reached on M-F, 7:00- 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on (571) 272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. H. E./  
Examiner, Art Unit 1792

/Katherine A. Bareford/  
Primary Examiner, Art Unit 1792